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(54) **METHOD FOR ENHANCING LINE-TO-LINE CAPACITANCE UNIFORMITY OF PLASMA ENHANCED CHEMICAL VAPOR DEPOSITED (PECVD) INTER-METAL DIELECTRIC (IMD) LAYERS**

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(57) **ABSTRACT**

A method for forming a dielectric layer. There is first provided a substrate. There is then formed over the substrate a patterned conductor layer. There is then formed upon the patterned conductor layer, while employing a plasma enhanced chemical vapor deposition (PECVD) method, a silicon containing dielectric layer, wherein when forming the silicon containing dielectric layer there is controlled a temperature of the substrate so that there is enhanced a line-to-line capacitance uniformity of the patterned conductor layer.

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(58) Field of Search **438/597, 624, 438/680, 784, 763; 257/642**

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25 Claims, 2 Drawing Sheets

